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broadly than) the field of printing covered by the Group 2 claims. Because, the Examiner will already be searching and examining the fields of use covered by both the Group 1 and Group 2 claims, this should not place any serious burden on the Examiner to search and examine both groups in this application.

In the event that the Examiner is not willing to consider the request to search and examine both groups of claims in this application, the Applicants agree to the withdrawal of the Group 2 claims under 37 C.F.R. 1.142(b).

Background

The Group 1 claims (claims 1-8) in this application are broadly directed to an inkjet ink set comprising:

- a first ink comprising a colorant in a nonaqueous vehicle;
- and

- a fixing fluid comprising a fixing agent in an aqueous vehicle.

As explained in the present specification, fixing fluids (fixers) are known for use with aqueous inkjet inks. Such fixers commonly operate by creating an adverse charge-charge interaction with the colorant in the aqueous ink, thereby causing the colorant to deposit and fix on the substrate surface. This mechanism is effective with aqueous inks because the colorant is typically stabilized to dispersion or solution by an ionic mechanism. A fixer with opposite charge effectively destabilizes and fixes the colorant.

As also explained in the specification, nonaqueous inkjet inks can provide potentially advantageous properties (as compared with some aqueous inkjet inks) by formulating with solvents having low volatility (i.e. slow drying or non-drying), and can employ colorants that provide highly rub- and smear-resist images. The vehicles for nonaqueous inkjet inks are typically based on low dielectric constant solvents, and the colorants are thus not typically dispersed in the nonaqueous vehicle by charge stabilization mechanisms such as in aqueous vehicles.

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When jetted on substrates such as paper, nonaqueous inks tend to penetrate deeply, causing loss of color density, blurring and strikethrough. A fixing mechanism for use with nonaqueous inkjet inks would thus be advantageous.

Methods of fixation suitable for aqueous inks, however, would not intuitively be expected to be operable with nonaqueous inks because charge stabilization is not in effect in a low dielectric constant (nonaqueous) vehicle. The use of an aqueous vehicle for the fixer would also intuitively seem to be a poor match for promoting the interaction between the fixing agent (in the aqueous vehicle) and the colorant (in the nonaqueous vehicle).

It has, however, been found that fixing fluids based on aqueous vehicles, that would typically be considered suitable for use with aqueous ink systems, are also suitable for use with non-aqueous ink systems.

Rejection

Claims 1-8 stand rejected under 35 U.S.C. 103(a) as allegedly being obvious over the disclosure of EP-A-1148104 (the '104 reference). The Applicants respectfully traverse.

It appears, in essence, to be the Examiner's position that the '104 reference teaches parameters that a person of ordinary skill in the art could use, in an obvious manner, to formulate an ink set as presently claimed. The Applicants submit that the '104 reference provides no such teaching, and the fair disclosure of the reference does not render the presently claimed invention obvious.

The Applicants do agree with the Examiner that the '104 reference discloses the possibility of an aqueous fixer fluid. What the '104 reference does not fairly disclose is the use of that aqueous fixer fluid in combination with one or more nonaqueous inks, as set forth in the present claims.

With respect to the contention that the reference discloses nonaqueous inks, the Examiner points to the disclosure in lines 49-50 on pages 3 of the reference, which does indeed indicate that the ink and fixer fluid may comprise relatively

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large amounts (up to 80 wt%) or organic solvents. This, however, is not a disclosure of the use of non-aqueous inks, and is taken out of context with the remainder of the disclosure of the reference.

Specifically, the Applicants contend that the '104 reference is explicitly directed to ink sets based on aqueous inks, as disclosed in lines 8-11 on page 3 of the reference ("The fluid set may be used in many applications of aqueous-based printing inks, ...") (emphasis added), as well as the definition of "aqueous inks" set forth in lines 12-15 on page 3 of the reference ("Aqueous inks of this invention comprise, by weight, ..., from about 0.1 to about 40 wt% of one or more organic solvents and/or additives ...").

The '104 reference makes further mention of an aqueous vehicle (paragraph [0020] on page 4), and the fact that the balance of the ink compositions used in the context of the reference comprises water (paragraph [0025] on page 4). There is still further no exemplification of anything even close to a "nonaqueous" ink the context of the presently claimed invention.

Even further, in the passage cited by the Examiner (paragraph [0017] on page 3), it is clearly suggested that the vehicles of the ink and fixer fluid should be similar, which would be in a direction away from a nonaqueous ink and an aqueous fixer fluid as presently claimed.

The Applicants contend that the '104 reference is simply lacking in any disclosure that would even remotely lead one of ordinary skill in the art to formulate an ink set as presently claimed. Based on the fair disclosure of the '104 reference, one of ordinary skill in the art would in fact most likely be led in a completely different direction.

As such, the Applicants respectfully submit that the current obviousness rejection cannot be supported legally or factually, and respectfully request withdrawal of the same.

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Conclusion

In view of the arguments above and the current record, the Applicants submit that the invention of claims 1-8 (and non-elected claims 9-18) is in fact patentable over the art of record, and respectfully request an action to that effect.

Should the Examiner wish to discuss any issues involved in this application, the Examiner is respectfully invited to contact the undersigned at the telephone exchange set forth below.

Respectfully submitted,



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